

Amendment to Claim Under 37 CFR 1.312

It is noted that only the amended claims are listed in the Examiner's amendment. A complete set of the allowed claims, showing the amendments and including those allowed claims which were previously presented, is attached hereto for the convenience of the Office. The word "is" between "wing" and "swept" in claim 66 has been reinstated for grammatical correctness; if this change is not acceptable, the Office is authorized to delete it.

ALLOWED CLAIMS

1. (currently amended) An aerial recovery system for recovering an aircraft, said system comprising;

the aircraft and

an arrestment line held up at an upper end by support structure supported by a base, a lower end of the arrestment line also being connected to the base, said arrestment line not being a support for said support structure in the form of a rigid, straight-line guy line tension-tie connection between an immovable upper end attached to the support structure and an immovable lower end,

said aircraft containing a capturing device for capturing said line, said capturing device comprising a hook positioned laterally of a longitudinal axis of said aircraft, said hook being adapted to releasably secure said line to said aircraft, said hook being the primary means of capturing said aircraft,

said aircraft containing structure suitable for deflecting said line laterally into engagement with said hook, said structure comprising a wing of said aircraft.

Claims 2 and 3 canceled.

4. (previously presented) The aerial recovery system of claim 1 in which said hook has a line retaining device.

5. (original) The aerial recovery system of claim 1 in which said capturing device is positioned on a forward inboard edge of a wing of said aircraft.

6. (original) The aerial recovery system of claim 1 in which the capturing device is located inboard of the aircraft's wingtip.

7. (original) The aerial recovery system of claim 6 in which the capturing device is located inboard more than 5% of the wing semi-span.

8. (original) The aerial recovery system of claim 1 in which multiple generally vertically oriented arrestment lines are spaced apart across the direction of travel of said aircraft as it approaches for recovery so as to increase the lateral capture envelope of said recovery system.

9. (currently amended) The aerial recovery system of claim 1 in which said ~~aircraft comprises a wing~~ lateral deflecting structure is swept at least fifteen degrees.

Claims 10 and 11 canceled.

12. (previously presented) The aerial recovery system of claim 1 wherein the arrestment line is held up by a pole.

13. (previously presented) The aerial recovery system of claim 1 wherein said arrestment line is held up by a slender structural member.

Claims 14-17 canceled.

18. (currently amended) In combination, a flying object and an apparatus adapted for capturing the flying object,

the flying object having a spanwise lifting surface with a capture device positioned laterally of the centerline of the flying object, the capture device comprising a hook adapted to releasably secure the aircraft flying object to the apparatus, the hook being the primary means of capturing said flying object, the flying object being adapted for flying along a flight path,

the apparatus comprising:

an arrestment line positionable in the flight path of the flying object, at least a portion of the arrestment line being inclined at an angle relative to the spanwise lifting surface to intersect the leading edge of the spanwise lifting surface, the arrestment line being positioned to engage the capture device of the flying object to releasably secure the flying object to the apparatus; and

a support structure coupled to the arrestment line at two spaced-apart positions and positioned to support a portion of the arrestment line between said positions in the flight path,

said arrestment line not being a support for said support structure in the form of a rigid, straight-line guy line tension-tie connection between an immovable upper end attached to the support structure and an immovable lower end.

19. (previously presented) The combination of claim 18 wherein the arrestment line includes a cable or pole.

Claims 20-21 canceled.

22. (previously presented) The combination of claim 18 wherein the hook includes a latch.

Claims 23-33 canceled.

34. (currently amended) In combination, a flying object and an apparatus adapted for capturing the flying object, the combination comprising:

a) a line suspended across the flight path of the object in an orientation which includes a component normal to the flight path;

b) support structure, ~~supported by~~ with a load path to a base, suspending the line, a lower end of the line being restrained to prevent the line from blowing freely in the wind, the arrestment line not being a support for the support structure in the form of a rigid, straight-line guy line tension-tie connection between an immovable upper end attached to the support structure and an immovable lower end; and

c) a device ~~attached to~~ located off the centerline of the flying object, the device being adapted for intercepting the sliding of the line after the line slides laterally along a

leading edge of a structure comprising a wing of the flying object and holding the flying object to the line, the device being the primary means of capturing the flying object, the load path not including the arrestment line below the flying object.

35. (previously presented) The combination of claim 34, wherein the line is a cable.

Claim 36 canceled.

37. (currently amended) The combination of claim 34, wherein the device adapted for intercepting ~~the sliding of~~ the line comprises a hook on a the wing of the flying object, the hook including a line retaining device.

38. (currently amended) The combination of claim 34 ~~66~~, wherein the device adapted for intercepting the line comprises a hook on the wing of the flying object and ~~said hook~~ includes an inner throat smaller than the diameter of the line so as to generate a sufficient amount of braking force such that after the line is intercepted by the hook, sliding of the line through the hook is substantially arrested.

39. (previously presented) The combination of claim 34, wherein the motion of the flying object during deceleration is accommodated by compliance of the line.

Claim 40 canceled.

Claim 41 canceled (without prejudice).

42. (currently amended) ~~The combination of claim 44~~ aerial recovery system of claim 1, wherein the line is a cable.

Claims 43 and 44 canceled.

45. (currently amended) The ~~combination of claim 44~~ aerial recovery system of claim 54, wherein the hook includes an inner throat smaller than the diameter of the line so as to generate a sufficient amount of braking force such that after the line is intercepted by the hook, sliding of the line through the hook is substantially arrested.

46. (currently amended) The ~~combination of claim 44~~ aerial recovery system of claim 1, wherein the motion of the ~~flying object~~ aircraft during deceleration is accommodated by compliance of the line.

Claims 47-50 canceled.

51. (previously presented) The aerial recovery system of claim 1 wherein the arrestment line is held up by a beam and wherein the beam is mounted to move under the force of the aircraft's striking the arrestment line.

52. (previously presented) The aerial recovery system of claim 1 wherein the arrestment line and the capturing device are configured to restrict sliding of the aircraft along the line after the line is guided into connection with the hook.

53. (previously presented) The aerial recovery system of claim 54 wherein the arrestment line is restrained at a lower end to prevent the arrestment line from blowing freely in the wind.

54. (currently amended) An aerial recovery system for capturing an aircraft ~~on a water craft~~, said system comprising;

the aircraft and

an arrestment line ~~connected to said water craft, said arrestment line being held~~
up at at least one end by an aerial lifting apparatus that uses a relative wind to generate
lift, said aerial lifting apparatus not being a rotary wing apparatus that generates lift by
blowing air down through a rotor,

said aircraft containing a hook adapted for capturing said line and releasably
securing said aircraft to said arrestment line, said hook being positioned laterally of a
longitudinal axis of said aircraft, said hook being the primary means of capturing said
aircraft,

said aircraft containing structure suitable for deflecting said line laterally into
engagement with said hook, said structure comprising a wing of said aircraft, said ~~wing~~
~~of said aircraft~~ structure being swept at least fifteen degrees from an inboard end of the
wing to an outboard end of the wing.

55. (previously presented) The system of claim 54 wherein said hook comprises
a retaining structure adapted to prevent said arrestment line from disengaging from said
hook.

56. (previously presented) The system of claim 54 wherein the hook extends
around forward of the line after capture of the line.

57. (currently amended) The system of claim 54 wherein the ~~arrestment line is~~
~~held up by a lifting device comprising a structure requiring a relative wind to generate lift~~
aerial lifting apparatus also comprises a lighter-than-air balloon.

58. (previously presented) The system of claim 1 wherein the base comprises the ground.

59. (previously presented) The system of claim 1 wherein the base comprises a water craft.

60. (previously presented) The system of claim 1 wherein the hook extends around forward of the line after capture of the line.

61. (previously presented) The system of claim 1 wherein the lower end of the line is connected to the base through an energy-absorbing device.

62. (previously presented) The system of claim 1 wherein said system comprises a single arrestment line.

63. (previously presented) The system of claim 1 wherein said system includes more than one hook and more than one arrestment line.

64. (currently amended) The combination of claim 18 wherein the hook is positioned forward of a line defined by ~~the~~ a leading edge of ~~the~~ a wing inboard of the hook.

65. (currently amended) The combination of claim 18 wherein the ~~wing~~ spanwise lifting surface is swept at least fifteen degrees.

66. (currently amended) The combination of claim 34 wherein the leading edge of the structure comprising a wing is swept at least fifteen degrees.

67. (previously presented) The combination of claim 34 wherein an energy absorbing device is attached to the lower end of the line.

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Claim 68 canceled (without prejudice).

69. (new) The system of claim 54 wherein said aerial lifting apparatus is attached to a water craft.

70. (new) The system of claim 54 wherein said aerial lifting apparatus has a fabric aerodynamic lifting surface.

Respectfully submitted,

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